Technical characteristics

Туре Н



Number of contacts15 1 + 2 leading contact position 2 20 13 + 2 leading contacts position 2 4 und 2 30 3Current carrying capacity is limited by maximu maximus maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximu maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying capacity is limited by maximus maximus is the current carrying c			
Clearance ≥ 4.5 mm* Creepage ≥ 8.0 mm* Working voltage according to the safety memory on the associated wiring according to the safety memory on the associated wiring Test voltage U _{rm.s.} 3.1 kV* Contact resistance ≤ 8 mΩ Insulation resistance ≥ 10° Ω Temperature range -55 °C + 125 °C The higher temperature limit includes the local ambient and heading effects of the contacts -55 °C + 125 °C Male connector Connector with faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 46 247 Solder pins for pcb connector for faston 6.3 x 2.5 (faston blade with x wire gauge) according to Dix 42 247 Solder pins for pcb connectors 0.1 6.4 0.1 mm Dix H 2470<	Number of contacts	15 14 + 1 leading contact (position z 32) 13 + 2 leading contacts (position z 4 und z 32) 3 15 A max.	Current carrying capacity The current carrying capacity is limited by maximum materials for inserts and contacts including termin capacity curve is valid for continuous, non interrupted contacts of connectors when simultaneous power given, without exceeding the maximum temperature Control and test procedures according to DIN IEC
Creepage Working voltage The working voltage also depends on the cleance and creaged dimensions of the pub itself and the associated wiring≥ 8.0 mm* according to the safety regulations of the equipment Explanations see chapter of Omnectors should not be made under voltage>Test voltage Ur.m.s. Contact resistance the local ambient and heigher temperature limit includes the local ambient and heating effects of the contacts under local matheigher insolutions 0.1 ± 0.1 mm DIN 46 247 and DIN 46 247 Solder pins for pub connector solid to be disconting to DIN 46 247 and DIN 46 247 Solder pins for pub connector fractions 0.1 ± 0.1 mm DIN 46 247 Solder pins for pub connector fraction Connector fraction dividings Contacts under forLow currents and voltages the subscription biase with fastion 6.3 x ± 5 (fastion biade with wrie gauge) according to DIN 46 247 	Clearance	t ≥ 4.5 mm*	А
Working voltage The working voltage also depend on the clearance and creages also depend on the clearance and creages also depend 	Creepage	≥ 8.0 mm*	15
Test voltage $U_{r.m.s.}$ Contact resistance $\leq 8 \text{ m}\Omega$ Insulation resistance $\geq 10^{12}\Omega$ Temperature range $-55^{\circ}C+125^{\circ}C$ The higher temperature limit includes the local ambient and heating effects of the contacts under load Male connector Connector with faston 6.3×2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connections $0.1.6 \pm 0.1 \text{ mm}$ Female connector 6.3×2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connections $0.1.6 \pm 0.1 \text{ mm}$ Female connector 6.3×2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connections $0.1.6 \pm 0.1 \text{ mm}$ DIN EN 60097 Cage clamp terminal $0.144.257$ Solder pins for pcb connections $1.6 \pm 0.1 \text{ mm}$ DIN NEN 60097 Cage clamp terminal $0.144.15 \text{ mm}^2$ Electrical surface 490 N Materials Multings Contacts Surface Hard silver plated is for a table derived from actual experiences. Materials Multings Contact surface Hard silver plated, gold plated on request functions and also in extremely ago contact surface formation 50 Surface Materials Multings Contact surface Hard silver plated, gold plated on request functions and formal connectors tinned	Working voltage The working voltage also depends on the clearance and creepage dimensions of the pcb itself and the associated wiring	according to the safety regulations of the equipment Explanations see chapter 00 Connectors should not be mated under voltage	12 9 6 0 0 0 0
Contact resistance ≤ 8 mΩ Insulation resistance ≥ 10 ¹² Ω Temperature range -55 °C + 125 °C The higher temperature limit includes the local ambient and heating effects of the contacts under load -55 °C + 125 °C Electrical termination Male connector Connector with faston 6.3 x 2.5 (faston blade scoording to DIN 46 247 Solder pins for pcb connector for faston 0.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connector for faston 0.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connector for faston 0.14 + 1.5 mm ² Low currents and voltages Female connector 6.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connector for faston 0.14 + 1.5 mm ² The higher temperature solder pins for pcb connector for faston connector for faston connector for faston connector for faston connector for faston for pcb connector for faston connector for faston for pcb connector for faston connector for faston connector for faston for pcb connector for faston connector for faston connector for faston for pcb connector for faston for pcb connector for faston connector for faston for pcb connector for faston for faston filed, UL 94-V0 Copper alloy Below is a table derived from actual experiences. Materials Mouldings Contacts Thermoplastic resin, glass-fibre filled, UL 94-V0 Copper alloy Silver Goid	Test voltage U _{r.m.s.}	3.1 kV*	in i
Insulation resistance ≥ 10 ¹² Ω Ambient temperature in the true to true to the true to the true to the true to true to the true to true to the true to the true to the true to true to true to the true to true	Contact resistance	\leq 8 m Ω	
Temperature range The higher temperature limit includes the local ambient and heating effects of the contacts under load -55 °C + 125 °C Electrical termination Male connector Connector with faston 6.3 × 2.5 (faston blade width x wire gauge) according to DIN 46 245 and DIN 46 247 Low currents and voltages Female connector Solder pins for pcb connectors 01.6 ± 0.1 mm DIN EN 60 097 Type H standard contacts have a silver plated s vidth x wire gauge) according to DIN 46 245 and DIN 46 247 Female connector Connector for faston 6.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 245 and DIN 84 247 Type H standard contacts have a silver properties. I contact silfinty to subput. This layer is smooth a two currents or voltages small changes to the transmit les party interrupted when the contacts are mate thus guaranteeing very low contact esistances. In low currents or voltages small changes to the transmit les of autify functions and also in extremely age ments, HARTING recommend the use of gold plate connectors 0 1.6 ± 0.1 mm DIN EN 60 097 Insertion and withdrawal force Contacts Solder pins for pcb connectors 0 1.6 ± 0.1 mm DIN EN 60 097 Materials Mouldings Contact surface Thermoplastic resin, glass-fibre filled, UL 94-V0 Contact surface Materials Mouldings Contact surface Thermoplastic resin, glass-fibre filled, UL 94-V0 Contact s fibre filled, UL 94-V0 Contact surface Silver Silver Gold	Insulation resistance	$\geq 10^{12} \Omega$	Ambient temperature
Electrical termination Male connector Connector with faston 6.3 × 2.5 (faston blade width x wire gauge) Contacts Solder pins for pcb connectors Ø 1.6 ± 0.1 mm DIN EN 60.097 Type H standard contacts have a silver plated s contacts lifetime, the silver surface generates a lique to its affinity to sulphur. This layer is smooth a contact silve plate dis partly interrupted when the contacts are mate thus guaranteeing very low contact resistances. Ir low currents or voltages small changes to the transmit pliN EN 60.097 Female connector Connector for faston 6.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 Solder pins for pcb connectors Ø 1.6 ± 0.1 mm DIN EN 60.097 Cage clamp terminal 0.14-1.5 mm² Insertion and withdrawal force ≤ 90 N Materials Thermoplastic resin, glass-fibre filled, UL 94-V0 Copper alloy Contacts Gold Contact surface Hard silver plated, gold plated on request terminal onde of female connectors tinned	Temperature range The higher temperature limit includes the local ambient and heating effects of the contacts under load	– 55 °C + 125 °C	
Male connector Connector with faston 6.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 Type H standard contacts have a silver plated s cious metal has excellent conductive properties. I contact's lifetime, the silver surface generates a due to its affinity to sulphur. This layer is smooth a is partly interrupted when the contacts are mate thus guaranteeing very low contact resistances. Ir low currents or voltages small changes to the tr may be encountered. This is illustrated below wit aged contact representing a twenty year life is o new contact. Female connector Connector for faston 6.3 x 2.5 (faston blade width x wire gauge) according to DIN 46 247 In systems where such a change to the transmi lead to faulty functions and also in extremely age ments, HARTING recommend the use of gold plated to faulty functions and also in extremely age ments, HARTING recommend the use of gold plated to faulty functions and also in extremely age ments, HARTING recommend the use of gold plated on request terminal ends of female connectors tinned	Electrical termination		Low currents and voltages
Insertion and withdrawal force ≤ 90 N Materials Mouldings Thermoplastic resin, glass-fibre filled, UL 94-V0 Contacts Copper alloy Contact surface Hard silver plated, gold plated on request terminal ends of female connectors tinned SV Gold	Male connector	Connector with faston 6.3×2.5 (faston blade width x wire gauge) according to DIN 46 245 and DIN 46 247 Solder pins for pcb connections Ø 1.6 ± 0.1 mm DIN EN 60 097 Connector for faston 6.3×2.5 (faston blade width x wire gauge) according to DIN 46 245 and DIN 46 247 Solder pins for pcb connections Ø 1.6 ± 0.1 mm DIN EN 60 097 Cage clamp terminal 0.14-1.5 mm ²	Type H standard contacts have a silver plated s cious metal has excellent conductive properties. I contact's lifetime, the silver surface generates a l due to its affinity to sulphur. This layer is smooth a is partly interrupted when the contacts are mate thus guaranteeing very low contact resistances. In low currents or voltages small changes to the tr may be encountered. This is illustrated below wh aged contact representing a twenty year life is o new contact. In systems where such a change to the transmit lead to faulty functions and also in extremely ago ments, HARTING recommend the use of gold plate Below is a table derived from actual experiences.
Materials Mouldings Thermoplastic resin, glass-fibre filled, UL 94-V0 Copper alloy Silver Contacts Hard silver plated, gold plated on request terminal ends of female connectors tinned 5 V Gold	Insertion and withdrawal force	≤ 90 N	
	Materials Mouldings Contacts Contact surface	Thermoplastic resin, glass-fibre filled, UL 94-V0 Copper alloy Hard silver plated, gold plated on request terminal ends of female connectors tinned	5 V Gold

ying capacity

rying capacity is limited by maximum temperature of serts and contacts including terminals. The current s valid for continuous, non interrupted current loaded nectors when simultaneous power on all contacts is exceeding the maximum temperature.

t procedures according to DIN IEC 60512



s and voltages

rd contacts have a silver plated surface. This preexcellent conductive properties. In the course of a e, the silver surface generates a black oxide layer y to sulphur. This layer is smooth and very thin and ipted when the contacts are mated and unmated, ing very low contact resistances. In the case of very voltages small changes to the transmitted signal ntered. This is illustrated below where an artifically epresenting a twenty year life is compared with a

ere such a change to the transmitted signal could inctions and also in extremely aggressive environ-IG recommend the use of gold plated contacts.



* only valid for type H with 15 contacts

see chapter 00

see page 03.26

Mating conditions

Coding systems

Number of contacts





Male connectors

Identification	Number of contacts	Part No.	Drawing	Dimensions in mm
Male connector* for faston 6.3 x 2.5		Performance level 1	94 mox 94 mox 96	14.8-02
	15	09 06 015 2912		
1 leading contact (position z 32)	14 + 1	09 06 015 2931	Contact arrangement View from termina	ation side
2 leading contacts (position z 4 + z 32)	13 + 2	09 06 015 2922	X" Board drillings	
Male connector* with angled solder pins		Performance level 1	94 max. 94	
	15	09 06 115 2911	4.8x0.8	
1 leading contact (position z 32)	14 + 1	09 06 115 2932	Contact arrangement View from termina	ation side
2 leading contacts (position z 4 + z 32)	13 + 2	09 06 115 2921	Board drillings 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 0 2 508 all holes (0 0 508 all holes (0 0 0 14 x 508 (57),12) 1 18 50 10 x 5	
Male connector* with straight solder pins	15	Performance level 1		
1 leading contact (position z 32)	14 + 1	09 06 015 2914		

* Gold plated contacts on request

Number of contacts





Female connectors

	Identification	Number of contacts	Part No.	Drawing Dimensions in mm
	Female connector for faston 6.3 x 2.5 Cannot be used in a shell housing	15	Performance level 1 09 06 215 2811	84,9 12,4 14,5,08=71,12 14,x5,08=71,1
				Contact arrangement View from termination side X''X''
	Female connector for faston 6.3 x 2.5 May be used in a shell housing		Performance level 1	84,9 5 6 6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7
		15	09 06 215 2871	Contact arrangement View from termination side X'' Shell housing see chapter 20
8	Panel cut out			87555 875 875 875 875 875 875 875

Types power to 15 A

Number of contacts





Female connectors

Identification	Number of contacts	Part No.	Drawing Dimensions in mm	
Female connector* with solder pins "low profile"		Performance level 1		pes to 15 A
2.7 mm	15	09 06 215 2812 ¹⁾		Ty
4 mm	15	09 06 215 2821 ¹⁾ 09 06 215 2892 ²⁾		
5.5 mm	15	09 06 215 2890 ²⁾	90 95 max.	
7 mm	15	09 06 215 2831 ¹⁾ 09 06 215 2891 ²⁾	a 2.7 4 5.5 7 10	
10 mm	15	09 06 215 2841 ¹⁾	Contact arrangement View from termination side	
Board drillings Mounting side			all holes 15 ± 01 005 $2x$ 28^{+01} $2x$ 6 ± 001 6 ± 01 15 ± 01 $14\times [508] = (71,12)$ 90	
			1)3 3

¹⁾ Variant with silver plated contacts ²⁾ Variant with gold plated contacts

Number of contacts





ARTI

Female connectors



Туре МН



ELECTRONIC SECTION Number of contacts	21, 24		
Contact spacing (mm) Male connector Female connector	2.54 x 5.08 5.08		
Working current	6 A max.		
see current carrying capacity chart Clearance Creepage Working voltage	≥ 1.6 mm ≥ 3 mm		
The working voltage also depends on the clearance and creepage dimensions on the pcb itself, and the associated wiring	according to the safety regulations of the equipment. Explanations see chapter 00		
Test voltage U _{r.m.s.} Contact resistance	1.55 kV \leq 15 m Ω wrap, solder termination		
	$\leq 20 \text{ m}\Omega$ including crimp connection		
Electrical termination Male connector Female connector	Solder pins for pcb connection \emptyset 1 ± 0.1 mm acc. to IEC 60 326-3 Wrap posts 1 x 1 mm diagonal 1.34-1.45 mm Solder pins for pcb connection \emptyset 1 ± 0.1 mm acc. to IEC 60 326-3 Crimp terminal 0.00-1.5 mm ²		
Contact surface	Contact zone: selectively plated		
Contact Sundee	according to performance level ¹⁾ Termination zone: tinned		
HEAVY DUTY SECTION* Number of contacts	7		
Working current	15 A max.		
Clearance Creepage Working voltage	≥ 4.5 mm ≥ 8.0 mm		
The working voltage also depends on the clearance and creepage dimensions on the pcb itself, and the associated wiring	according to the safety regulations of the equipment. Explanations see chapter 00		
Test voltage U _{r.m.s.}	3.1 kV ≤ 8 mΩ		
Electrical termination	S 0 11122		
Male connector	Connector for faston 6.3 x 2.5 (faston width x wire gauge) acc. to DIN 46 245 and DIN 46 247 Solder pins for pcb connection (1.6 + 0.1 mm acc. to DIN EN 60.097		
Contact surface	Hard silver plated		
	connectors tinned		
BOTH PARTS			
Insulation resistance	≥ 10 ¹² Ω		
The higher temperature range The higher temperature limit includes the local ambient and heating effects of the contacts under load	– 55 °C + 125 °C		
Insertion and withdrawal force	≤ 85 N		
Materials	The survey la stile stile		
Mouldings	glass-fibre filled, UL 94-V0		
Contacts	Copper alloy		
* only for type MH 24 + 7 ¹⁾ Explanation of performance levels s Mating conditions see chapter 00	see chapter 00		
Coding systems see page 03.26			

Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity curve is valid for continuous, non interrupted current loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512





DIN 41 612 · complementary type MH

HARTING

Number of contacts





Male connectors

Identification	Number of contacts	Part No. 3	. Explanation chapter 00 1				
Male connector for faston 6.3 x 2.5							
1 leading contact (position z 32)	24 + 7			09 06 03	31 6921	09 06 031 2921	
2 leading contacts (position z 2 + z 32)	24 + 7			09 06 03	31 6923		
Male connector with angled solder pins							
1 leading contact (position z 32)	24 + 7			09 06 13	31 6922		
2 leading contacts (position z 2 + z 32)	24 + 7			09 06 13	31 6924		
	Faston termi	inal 94max		Angled solder pins			
		48×08 2 85,4 - 88,9 -			 <u>} []</u>		
Board drillings Mounting side	28-01 26-01 25-1-01 25	z b d 16 14 12 508 - 7x50 - [88.9]	10 8 6 4 2 10 8 6		Contact arrang View from terminatio	ement on side	
	32 30 28 32 30 28 3 4 4 4 5 508 2 100 508 4 645.00	26 24 22 20 zb d 16 14 12 1 holes (b)(05) (b)		.ד	²² ²² ²⁴ ²⁴ ²⁴ ²⁶ ²⁷	X" 40 12 12 12 12 12 12 12 12 12 12	

Types power to 15 A

DIN 41 612 · complementary type MH

Number of contacts





Female connectors

Identification	Number of contacts	Part No. 3	Performance	e levels according to 2	DIN 41 612.	Explanation chapter 00 1
Female connector with solder pins 4.5 mm	24 + 7			09 06 231 6	822	09 06 231 2822
Female connector with wrap posts 1 x 1 mm	24 + 7			09 06 231 6	821	09 06 231 2821
Female connector for crimp contacts Order contacts separately, see chapter 02	24 + 7					09 06 231 2881
		64,9 64,9 6320,8 6320,8 7x508-30,48 7x508-30,555 7x508-3555 7x508-3555 7x508-3555 7x508-3555 7x508-3555 7x508-3555 2d 2b 10 10 10 10 10 10 10 10 10 10			94,3	7+5,08-35.55
Panel cut out				Conta View fro	act arranger	nent side
Board drillings		<u></u>		,,X ²¹ − (20) (1) (2) (2) (2) (2) (2) (2) (2) (2		- 2 - 4 - 6 - 9 - 10 - 12 - 12 - 14 - 16 - 10 - 12 - 14 - 16 - 10 - 12 - 12 - 14 - 16 - 10 - 12 - 12 - 14 - 16 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10
wounting side	Shell housin see chapter	5.08 120 120 120 120 120 120 120 120 120 120	th crimp contacts		xx" d30 z32	Dimensions in mm

03

23 Dimensions in mm

HARTIN